

Claims

1. An apparatus for cosmetic treatment comprising:
an applicator including at least one positive and one negative electrode for engaging the skin of a patient and applying a pulsed electric field to the skin and the subcutaneous tissues in a predetermined volume of skin and subcutaneous tissue to be treated;
a power supply for generating high voltage pulses for applying a pulsed electric field to the skin and subcutaneous tissues, said pulses having a voltage above the upper electroporation limit of subcutaneous fat cells in the treated volume for the predetermined volume; and
a connector connecting said applicator to said power supply.

2. An apparatus according to claim 1 wherein said applicator includes a plurality of electrodes in an array for applying electric field to the skin and subcutaneous tissues of the patient.

3. An apparatus according to claim 1 wherein said applicator comprises a pair of forceps including a pair of arms and an electrode mounted on each arm, said arms moveable toward and away from one another.

4. An apparatus according to claim 1 wherein said applicator comprises a pair of members, a first one of said members including a needle-like electrode and the second of said members including a flat electrode.

5. An apparatus according to claim 1 wherein said power supply generates pulses of duration in a range of 10 microseconds to 100 milliseconds.

1 6. An apparatus according to claim 6 wherein the amplitude of the electric field
2 applied to the treated volume falls in a range of 20 Volt/mm to 2000 Volt/mm.

1 7. An apparatus according to claim 1 wherein the amplitude of the electric field
2 applied to the treated volume falls in a range of 20 Volt/mm to 2000 Volt/mm.

1 8. An apparatus for weight loss and/or body sculpturing, comprising:
2 an applicator with an electromagnetic coil in it designed for generating high
3 pulsed magnetic fields;

4 a pulse power supply capable of generating high pulses of current;

5 a low resistance cable connecting the electromagnetic coil to the power supply. WAB

1 9. An apparatus according to claim 8 wherein the curl electric field generated in
2 the subcutaneous tissue is in the range of 30 to 50 Volt/mm, and the duration of the
3 pulses is 5 to 20 microseconds.

1 10. A method for cosmetic treatment in lieu of cosmetic surgery, weight loss
2 and/or body sculpturing comprising:

3 providing an applicator with a set of positive and negative electrodes for engaging
4 the skin of a patient and applying a pulsed electric field to the skin and the subcutaneous
5 tissues of an area to be treated;

6 providing a power supply capable of generating high voltage pulses;

7 engaging patient's skin with the electrodes;

8 applying a pulsed electric field to the area to be treated via said electrodes with an
9 amplitude sufficient to cause death to subcutaneous fat cells having a predetermined
10 minimum size.

1 11. The method of claim 1 including:
2 applying electroporation treatment to predetermined multiple sites on the patient's
3 body.